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Steven Reynolds

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SCHWEGMAN, LUNDBERG & WOESSNER/OPEN TV

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EXAMINER

INGVOLDSTAD, BENNETT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/609,000	Applicant(s) REYNOLDS ET AL.	
	Examiner Bennett Ingvaldstad	Art Unit 2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 15 October 2008 have been fully considered, but are moot in view of the new rejections using the Shahine reference.

Claim Objections

2. Claim 27 is objected to because of the following informalities: The claimed "said set top box" lacks proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-31 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheok (US 6934906) in view of Shahine (US 7082576).

Claim 1: Cheok discloses a method of producing a video signal [...] for outputting video programming to at least one viewer, said method comprising:
receiving a first video signal at said set top box (401 [Fig 4]);

processing said first video signal to produce a first image stored in memory of said set top box (402 [Fig 4], information may be an image [col. 3, l. 56]), said first image not intended to be displayed independently (object is combined into a scene 405 [Fig 4]);

receiving a second video signal at said set top box (403 [Fig 4]);

processing said second video signal to produce a second image stored in said memory ..., said second image not intended to be displayed independently (404 [Fig 4]);

receiving a presentation description ... (Fig. 2: scene description info 225 and integration instructions 222);

accessing said presentation description comprising a set of instructions that define a portion of said first image and that defines the manner in which said portion of said first image and a portion of said second image are combined (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38] for creating scene 250 [Fig 2]), the manner in which the images are combined being selected from at least one of a plurality of manners of combinations [col. 3, l. 61-66] [col. 5, l. 56-67], and the presentation description instructions also defining a sequence of operations performed over time (e.g. moving objects [col. 3, l. 61-67]);

combining said portion of said first image with said portion of second image in accordance with said presentation description to produce a combined image (scene 250 [Fig 2]); and

outputting displaying said combined image as said video signal as part of said video programming to said at least one viewer (scene 250 on display device [Fig 2]).

Cheok further discloses that the video may be output to a television [col. 2, l. 1], but does not specifically disclose that the device is a set top box.

Nor does Cheok further teach that the presentation description comprises instructions defining a plurality of manners of combining portions of the first and second images, the selected manner chosen based on user preference information in the set top box.

Shahine teaches a device that may be embodied as a set top box (col. 5, l. 24) for composing a displayed scene using a presentation description to arrange data objects (Abstract), wherein the arranged objects include images (col. 13, l. 20-29), in a plurality of manners based on a priority associated with the object (Abstract), wherein the priority is determined based on user preference information stored in the device (col. 8, l. 21-35).

It would have been obvious to have modified Cheok's presentation descriptions for arranging image objects with Shahine's teaching of a dynamic arrangement of objects, thus providing for a plurality of manners of combining images into an integrated scene, based on user preference information, for the purpose of displaying the most important objects to the user (Shahine col. 2, l. 40-65). Further, it would have been obvious to have implemented the method in

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a set top box, due to the known utility of set top boxes for implementing such methods (Shahine col. 5, l. 17-27).

Claim 2: Cheok discloses the method as set forth in claim 1 wherein said step of combining further comprises:

applying a mask that defines said portion of said first image (overlying applications on images [col. 8, l. 35-43], also scene 556 [Fig 5]).

Claims 3 and 4 are rejected over Cheok's logical/mathematical combination of the decoded AV media objects 541 into a composite scene 556 [Fig 5].

Claim 5: Cheok discloses the method as set forth in claim 1 wherein said step of combining said video signals further comprises:

scaling said portion of said first image (media objects' size can be adjusted [col. 3, l. 5-10]).

Claim 6 is rejected in view of the claim 5 rejection construing "scaling" as a type of "warping".

Claim 7: Cheok discloses the method as set forth in claim 1 wherein said step of accessing said presentation description further comprises:

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fetching accessing said presentation description across a network [col. 5, l. 38-50].

Claim 8: Cheek discloses the method as set forth in [[of]] claim 1 wherein said step of accessing said presentation description further comprises:

receiving a network address at which said presentation description can be accessed (downloading from a network [col. 3, l. 3-6] implies receiving an address);

fetching said presentation description from said network address [col. 3, l. 3-6].

Claim 9: Cheek discloses the method as set forth in claim 1 wherein said step of accessing said presentation description further comprises:

selecting said presentation description from a plurality of presentation descriptions contained in said first video signal (different information is shown depending on context [col. 3, l. 43-67]).

Claim 10: Cheek discloses the method as set forth in [[of]] claim 1, said method further comprising:

modifying said presentation description in response to input from said at least one viewer [col. 3, l. 43-67].

Claim 11: Cheek discloses the method as set forth in claim 1, said method further comprising:

processing said first video signal to produce first audio data stored in said memory of said set top box (media objects may be audio objects [col. 10, l. 27-30]);

processing said second video signal to produce second audio data stored in said memory of said set top box [col. 10, l. 27-30];

accessing said presentation description that describes the manner in which said first audio data and said second audio data are combined (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38]); and

combining said first audio data and said second audio data in accordance with said presentation description (combining to form composite audiovisual scene 550 [Fig 5]).

Claim 12: Cheek discloses a method of producing a sequence of combined images [...] used for outputting video programming to said at least one viewer, said method comprising:

receiving a first video signal at said set top box (401 [Fig 4]);

processing said first video signal to produce a first sequence of images stored in memory of said set top box (402 [Fig 4], information may be an image [col. 3, l. 56]), said first sequence of images not intended to be displayed independently (object is combined into a scene 405 [Fig 4]);

receiving a second video signal at said set top box (403 [Fig 4]);

processing said second video signal to produce a second sequence of images stored in said memory ..., said second sequence of images not intended to be displayed independently (404 [Fig 4]);

receiving a presentation description ... (Fig. 2: scene description info 225 and integration instructions 222);

accessing said presentation description comprising a set of instructions that define a portion of said first sequence of images and that defines the manner in which said portion of said first sequence of images and a portion of said second sequence of images are combined (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38] for creating scene 250 [Fig 2]), the manner in which the sequences of images are combined being selected from at least one of a plurality of manners of combinations [col. 3, l. 61-66] [col. 5, l. 56-67], and the presentation description instructions also defining a sequence of operations performed over time (e.g. moving objects [col. 3, l. 61-67]);

combining said portion of said first sequence of images with said portion of said second sequence of images in accordance with said presentation description to produce a finalized sequence of combined images (scene 250 [Fig 2]); and

outputting said finalized sequence of combined images as a part of said video programming to said at least one viewer (scene 250 on display device [Fig 2]).

Cheok further discloses that the video may be output to a television [col. 2, l. 1], but does not specifically disclose that the device is a set top box.

Nor does Cheok further teach that the presentation description comprises instructions defining a plurality of manners of combining portions of the first and second images, the selected manner chosen based on user preference information in the set top box.

Shahine teaches a device that may be embodied as a set top box (col. 5, l. 24) for composing a displayed scene using a presentation description to arrange data objects (Abstract), wherein the arranged objects include images (col. 13, l. 20-29), in a plurality of manners based on a priority associated with the object (Abstract), wherein the priority is determined based on user preference information stored in the device (col. 8, l. 21-35).

It would have been obvious to have modified Cheok's presentation descriptions for arranging image objects with Shahine's teaching of a dynamic arrangement of objects, thus providing for a plurality of manners of combining images into an integrated scene, for the purpose of displaying the most important objects to the user (Shahine col. 2, l. 40-65). Further, it would have been obvious to have implemented the method in a set top box, due to the known utility of set top boxes for implementing such methods (Shahine col. 5, l. 17-27).

Claim 13: Cheok discloses the method as set forth in claim 12 wherein said step of combining further comprises:

applying a mask specified in said presentation description that defines said portion of said first sequence of images (overlying applications on images [col. 8, l. 35-43], also scene 556 [Fig 5]).

Claim 14: Cheok discloses the method as set forth in claim 13 wherein said step of applying a mask further comprises:

executing program code that modifies said mask to select a different portion of at least one image of said first sequence of images (modifying the scene [col. 3, l. 44-67]).

Claims 15 -19 are rejected as indicated in the rejections of claims 3-6 and 10, respectively.

Claim 20: Cheok discloses a method of controlling generation of a combined video signal for use as video programming to at least one viewer [...] at said at least one viewer's premises [...], said method comprising:

transmitting a first digital video signal to said set top box, said first digital video signal comprising a first image not intended to be displayed independently (401 [Fig 4]);

transmitting a second digital video signal to said set top box substantially simultaneously with said first digital video signal, said second digital video signal

comprising a second image not intended to be displayed independently (403 [Fig 4]);

loading image combination code into said set top box (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38]); and

transmitting a presentation description to said set top box, said presentation description comprising a set of instructions that define the manner in which a portion of said first image contained in said first digital video signal is combined with a portion of said second image contained in said second digital video signal to produce said combined video signal for use as video programming to at least one viewer (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38]) the manner in which the images are combined being selected from at least one of a plurality of manners of combinations [col. 3, l. 61-66] [col. 5, l. 56-67], and the presentation description instructions also defining a sequence of operations performed over time (e.g. moving objects [col. 3, l. 61-67]).

Cheek further discloses that the video may be output to a television [col. 2, l. 1], but does not specifically disclose that the device is a set top box.

Nor does Cheek further teach that the presentation description comprises instructions defining a plurality of manners of combining portions of the first and second images, the selected manner chosen based on user preference information in the set top box.

Shahine teaches a device that may be embodied as a set top box (col. 5, l. 24) for composing a displayed scene using a presentation description to arrange data objects (Abstract), wherein the arranged objects include images (col. 13, l. 20-29), in a plurality of manners based on a priority associated with the object (Abstract), wherein the priority is determined based on user preference information stored in the device (col. 8, l. 21-35).

It would have been obvious to have modified Cheok's presentation descriptions for arranging image objects with Shahine's teaching of a dynamic arrangement of objects, thus providing for a plurality of manners of combining images into an integrated scene, for the purpose of displaying the most important objects to the user (Shahine col. 2, l. 40-65). Further, it would have been obvious to have implemented the method in a set top box, due to the known utility of set top boxes for implementing such methods (Shahine col. 5, l. 17-27).

Claim 21: Cheok discloses the method as set forth in claim 20 wherein said step of providing a presentation description further comprises:

transmitting a network address that said set top box employs to access said presentation description [col. 3, l. 3-6].

Claim 22: Cheok discloses the method as set forth in claim 20 wherein said step of providing a presentation description further comprises:

transmitting said presentation description to said set top box as a part of said first digital video signal (540 and 541 are both received from network [Fig 5]).

Claim 23: Cheek discloses the method as set forth in claim 20 wherein said step of providing a presentation description further comprises:

selecting said presentation description from a plurality of presentation descriptions wherein said presentation description conforms to the requirements of said set top box [col. 3, l. 43-67].

Claim 24: Cheek discloses the method as set forth in claim 20 wherein said step of providing a presentation description further comprises:

altering a general presentation description to conform to the requirements of said set top box (adapting and preprocessing decoder and integration instructions for executing by a processor [col. 5, l. 1-10]).

Claim 25: Cheek discloses the method as set forth in claim 20 wherein said step of providing a presentation description further comprises:

tailoring a general presentation description to correspond to a viewer preference [col. 3, l. 44-67].

Claim 26: Cheek discloses the method as set forth in claim 20 wherein said step of providing a presentation description further comprises:

transmitting a plurality of presentation descriptions to said set top box from which said set top box selects one presentation description that conforms to the requirements of said set top box (selection based on context [col. 3, l. 44-67]).

Claim 27: Cheek discloses a system that produces a combined video signal for use as video programming to at least one viewer, said system comprising:

- a processor (210 [Fig 2]);

- a memory, said memory coupled to said processor (220 [Fig 2]);

- a tuner/decoder (network interface 250 [Fig 2]) that receives a first video signal and a second video signal substantially simultaneously (first and second MPEG information from the same stream [col. 8, l. 54 – col. 9, l. 2]) and that routes control information contained in said first video signal to said processor [col. 5, l. 5-9] and that routes first video data from said first video signal and second video data from said second video signal to a video decoder (to a BIFS scene decoder [col. 8, l. 54 – col. 9, l. 11]);

- said video decoder that decodes said first video data and produces a first video image in said memory and that decodes said second video data and produces a second video image in said memory, said first video image and said second video image not intended to be displayed independently (BIFS decoder decodes information for composing an integrated scene [col. 9, l. 1-10]);

- receiving a presentation description ..., said presentation description comprising a set of instructions that define the manner in which a portion of said

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first video image is combined with a portion of said second video image to produce said combined video signal (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38]), the manner in which the images are combined being selected from at least one of a plurality of manners of combinations [col. 3, l. 61-66] [col. 5, l. 56-67], and the presentation description instructions also defining a sequence of operations performed over time (e.g. moving objects [col. 3, l. 61-67]);

program code operating in said processor that employs said presentation description and that accesses said portion of said first video image and said portion of said second video image in said memory and that combines said first portion of said first video image and said portion of said second video image in the manner specified by said presentation description to create said combined video signal (instructions 221 and 222 [Fig 2] for composing the scene [col. 9, l. 7-9]); and

a video output unit that outputs said combined video signal to a display device as a part said video programming to said at least one viewer (using display device 230 [Fig 2]).

Cheek further discloses that the video may be output to a television [col. 2, l. 1], but does not specifically disclose that the device is a set top box.

Nor does Cheek further teach that the presentation description comprises instructions defining a plurality of manners of combining portions of the first and

second images, the selected manner chosen based on user preference information in the set top box.

Shahine teaches a device that may be embodied as a set top box (col. 5, l. 24) for composing a displayed scene using a presentation description to arrange data objects (Abstract), wherein the arranged objects include images (col. 13, l. 20-29), in a plurality of manners based on a priority associated with the object (Abstract), wherein the priority is determined based on user preference information stored in the device (col. 8, l. 21-35).

It would have been obvious to have modified Cheok's presentation descriptions for arranging image objects with Shahine's teaching of a dynamic arrangement of objects, thus providing for a plurality of manners of combining images into an integrated scene, for the purpose of displaying the most important objects to the user (Shahine col. 2, l. 40-65). Further, it would have been obvious to have implemented the method in a set top box, due to the known utility of set top boxes for implementing such methods (Shahine col. 5, l. 17-27).

Claim 28: Cheok discloses the system as set forth in claim 27, said system further comprising:

a network interface that accesses a remote server to obtain said presentation description (250 [Fig 2], for downloading scene description [col. 3, l. 3-6]).

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Claim 29: Cheok discloses the system as set forth in claim 27 wherein said decoder further produces first audio data in said memory from said first video information and produces second audio data in said memory from said second video information (first and second media objects may be audio objects [col. 10, l. 27-30]).

Claim 30: Cheok discloses the system as set forth in claim 29 wherein said presentation description further specifies the manner in which said first audio data is combined with said second audio data (scene description information 225 and integration instructions 222 specify how media objects are combined [col. 4, l. 56 – col. 5, l. 38]).

Claim 31: Cheok discloses the system as set forth in claim 27, said system further comprising:

a user interface that receives an input from said at least one viewer that modifies said presentation description [col. 3, l. 44-67].

Claim 32: (canceled)

Claim 33: Cheok discloses the system as set forth in claim 27 wherein said program code operating in said processor further comprises:

a software routine that controls said decoder to perform at least part of the combination of said portion of said first video image and said portion of said second video image in a manner specified by said presentation description (decoder/integration instructions 221 and 222 [Fig 2]).

Claim 34: Cheek discloses the system as set forth in claim 27 wherein said program code operating in said processor further comprises:

a software routine that selects said presentation from a plurality of presentation descriptions contained in said first video signal [col. 3, l. 44-67].

Claim 35: Cheek discloses a [system] that produces a combined video signal for use as video programming, said set top box comprising:

processor means that processes a presentation description (210 [Fig 2]);

memory means that store software executable by said processor means and that store video images (220 [Fig 2]);

tuner/decoder means (network interface 250 [Fig 2]) that receive a first video signal and a second video signal (the two signals are part of the same stream [col. 8, l. 57 – col. 9, l. 2]) and that route control information contained in said first video signal to said processor means [col. 5, l. 5-9] and that route first video information from said first video signal and second video information from said second video signal to decoder means (to a BIFS scene decoder [col. 8, l. 54 – col. 9, l. 11]);

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decoder means that decode said first video information and produce a first video image in said memory means and that decode said second video information and produce a second video image in said memory means, said first video image and said second video image not intended to be displayed independently (BIFS decoder decodes information for composing [col. 9, l. 1-10]);

presentation description receiver means, said presentation description receiver means receiving a set of instructions that specify the manner in which a portion of said first video image is combined with a portion of said second video image to produce a combined image (scene description information 225 and integration instructions 222 [col. 4, l. 56 – col. 5, l. 38]), the manner in which the images are combined being selected from at least one of a plurality of manners of combinations [col. 3, l. 61-66] [col. 5, l. 56-67], and the instructions also defining a sequence of operations performed over time (e.g. moving objects [col. 3, l. 61-67]); and

video output means that output said combined image as said combined video signal to a display device as a part of said video programming to said at least one viewer (using display device 406 [Fig 4]).

Cheek further discloses that the video may be output to a television [col. 2, l. 1], but does not specifically disclose that the device is a set top box.

Nor does Cheek further teach that the presentation description comprises instructions defining a plurality of manners of combining portions of the first and

second images, the selected manner chosen based on user preference information in the set top box.

Shahine teaches a device that may be embodied as a set top box (col. 5, l. 24) for composing a displayed scene using a presentation description to arrange data objects (Abstract), wherein the arranged objects include images (col. 13, l. 20-29), in a plurality of manners based on a priority associated with the object (Abstract), wherein the priority is determined based on user preference information stored in the device (col. 8, l. 21-35).

It would have been obvious to have modified Cheok's presentation descriptions for arranging image objects with Shahine's teaching of a dynamic arrangement of objects, thus providing for a plurality of manners of combining images into an integrated scene, for the purpose of displaying the most important objects to the user (Shahine col. 2, l. 40-65). Further, it would have been obvious to have implemented the method in a set top box, due to the known utility of set top boxes for implementing such methods (Shahine col. 5, l. 17-27).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bennett Ingvoldstad whose telephone number is (571)270-3431. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bennett Ingvoldstad/

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Examiner, Art Unit 2427

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2427